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LETTER TO THE EDITOR

Hemoptysis as a presenting sign of multiple myeloma

Multiple myeloma (MM) is a malignant plasma cell disorder characterized by anemia, monoclonal gammopathy in serum and/or urine, bone pain, hypercalcemia, osteolytic lesions, hyper viscosity, renal failure.[1] Hemoptysis is coughing up blood originating from the lower respiratory tract. There are multiple causes of hemoptysis, originating from airway, parenchymal and cardiovascular diseases, and other causes. Diagnostic examinations include patient history, physical examination, bronchoscopy, laboratory tests, chest X-ray, computed tomography (CT) of the chest, pulmonary angiography, aortography, and angiography of the bronchials and other thoracic systemic arteries. Bronchoscopy together with clinical and radiological examinations indicates the part of the lung bleeding, yet the cause of hemoptysis cannot be determined in 20–30% of cases.[2] To our knowledge we did not notice any MM case who has hemoptysis as a first symptom in literatures.

A 49 years old female patient referenced to the clinic with hemoptysis mixed with white colored phlegm which started 15 days ago. Hemoptysis occurred randomly in a day and accrued by coughing. She did not describe any fever, loss of weight or perspiration at night. Physical examination of the patient was normal except paleness. In the patient's history there wasn't any chronical disease or no routine drug use. In laboratory tests; hemoglobin 7.6 g/dl, hematocrit 22.3%, platelet 326 000 mm^3, WBC 6000 mm^3, MCV 80 fL, plasma iron 46 μg/dl, percentage saturation of iron 24, ferritin 45.4 ng/ml, prothrombin time 14.5 s (normal range: 10–15 s), active partial thrombin time 28 s (normal range: 23–34), lactate dehydrogenase 134 U/L (normal range: 125–243), kidney functions, calcium level and full urine test were normal. Total protein 11.7 g/dl, albumin 3 g/dl, globulin 8.7 g/dl and immune globulin (Ig) G was recorded as 8.4 mg/dl. A monoclonal M pick was observed in electrophoresis of protein. Immune electrophoresis valuated as IgG kappa paraproteinemia. B_2-microglobulin ratio was 8.89 mg/L. Aspiration and biopsy of marrow revealed plasma cell ratio 42%. Multiple osteolytic lesions determined at direct radiography of bones (craniography, pelvic graphy) and spiral CT of thorax. Purified protein derivative recorded as negative (4 mm). Direct lung radiography valued as normal. There were no plasmacytoma in CT of thorax. Bronchoalveolar irrigation was normal. There wasn't any sign for an infection. There was no acid resistant bacteria. The accumulation of amyloid was not observed in the biopsy with Congo red under polarized light from trachea and pulmonary parenchymal as randomly. Cryoglobulin has not been detected at the patient who has negative anti-HCV and HbsAg. Platelet aggregation with ADP, collagen, epinephrine and ristocetin was normal. Otorhinolaryngologic examination did not explain any cause of hemoptysis. pH of hemoptysis was 8. Upper gastrointestinal tract endoscopy was normal. It was stage IIIA due to MM IgG kappa Durie–Salmon Staging System of International Myeloma Working Group.[1] International prognostic index was 3. Hemoptysis continued during this period. Vincristine, doxorubicin, dexamethasone and zoledronic acid given as treatment to the patient. After the second dose of treatment, hemoptysis symptom disappeared. The patient responded to treatment with biochemically fall in IgG M protein approximately as 50%. Autologous hematopoietic stem cell transplantation was planned for the patient.

Hemoptysis has been observed as a first sign for some diseases with rising of globulin like tracheobronchial amyloidosis, cryoglobulinemia and vasculitis.[3–5] Patients presenting with tracheobronchial amyloidosis have symptoms similar to those caused by various airway disorders. Tracheobronchial amyloidosis is not typically associated with systemic amyloidosis or pulmonary parenchymal involvement.[3] The inflammatory process involving the alveolar capillary walls may result in severe alveolar hemorrhage and consequently lead to a grave outcome.[4,5] MM may rarely have different clinical manifestation. Bleeding has been reported in 15% of patients with IgG myeloma. The bleeding may result from anoxia and thrombosis in capillary circulation, perivascular amyloid, and/or an acquired coagulopathy, such as coagulation factor X deficiency, in primary amyloidosis.[1] We suggest that when evaluating causes of hemoptysis MM should be kept in mind.

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